



Contribution ID: 34

Type: **Poster**

## **Toward a unified description of the crust and the core of neutron stars**

We recently developed a density functional theory based empirical approach using the extended Thomas-Fermi theory, allowing an analytical evaluation of the energy functional of the different components of stellar matter. The main advantage of this unified approach is that the crust-core transition is consistently treated, allowing to estimate upper bounds on observables such as pulsar glitches which are supposed to be sensitive on the crust-core interface. In our poster, we present some preliminary results in the case of non-accreting cold neutron stars.

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**Session Classification:** Poster session